

CLAIMS

1. A gas generant composition comprising a nitrogen-containing organic compound, an oxygen-containing inorganic oxidizer, and a third component of at least one selected from the following (1) through (4):

(1) manganese dioxide having a specific surface area not less than 50 m^2/g ;

(2) copper oxide having a specific surface area not less than 1 m^2/g ;

(3) a molybdenum compound of at least one selected from the group consisting of molybdenum dioxide, molybdenum trioxide, molybdic acid and ammonium molybdate; and

(4) a mixture of manganese dioxide and at least one metal oxide selected from the group consisting of copper oxides, cobalt oxides, iron oxides and silver oxides.

2. The composition according to claim 1 wherein the third component is (1) mentioned above and has a specific surface area from 100 m^2/g to 300 m^2/g .

3. The composition according to claim 1 wherein the third component is (1) mentioned above is contained in an amount of 1 through 40% by weight of the composition.

4. The composition according to claim 1 wherein the third component is (2) mentioned above and has a specific surface area from 1.5 m^2/g to 100 m^2/g .

5. The composition according to claim 1 wherein the third component is (2) mentioned above and has an average

particle size not more than 5 microns.

6. The composition according to claim 1 wherein the third component is (2) mentioned above and has an average particle size from 0.5 microns to 5 microns.

5 7. The composition according to claim 1 wherein the third component is (2) mentioned above is contained in an amount of 1 through 40% by weight of the composition.

10 8. The composition according to claim 1 wherein the third component is (3) mentioned above is contained in an amount of 1 through 40% by weight of the composition.

9. The composition according to claim 1 wherein the metal oxide is at least one selected from the group consisting of CuO, Cu₂O, Co₃O₄, Fe₂O₃ and Ag₂O.

15 10. The composition according to claim 1 wherein the third component is (4) mentioned above and the ratio of manganese dioxide to the metal oxide by weight is 0.2 through 50.

11. The composition according to claim 1 wherein the third component is (4) mentioned above is contained in an 20 amount of 1 through 40% by weight of the composition.

12. The composition according to claim 1 wherein the nitrogen-containing organic compound is at least one selected from the group consisting of organic compounds containing amino group or amido group and tetrazole derivatives.

25 13. The composition according to claim 12 wherein the organic compound containing amino group or amido group is azodicarbonamide or dicyandiamide.

14. The composition according to claim 12 wherein the tetrazole derivative is aminotetrazole.

15. The composition according to claim 1 wherein the oxygen-containing inorganic oxidizer is at least one selected
5 from the group consisting of KNO_3 , $\text{Sr}(\text{NO}_3)_2$ and KClO_4 .

16. The composition according to claim 1 wherein the oxygen-containing inorganic oxidizer is a mixture of $\text{Sr}(\text{NO}_3)_2$ and KClO_4 .

17. The composition according to claim 1 wherein the
10 C_2 nitrogen-containing organic compound is azodicarbonamide and the oxygen-containing inorganic oxidizer is KClO_4 .

18. The composition according to claim 1 wherein the third component is (1) mentioned above.

19. The composition according to claim 1 wherein the
15 third component is (2) mentioned above and has a specific surface area not less than $1 \text{ m}^2/\text{g}$ and an average particle size not more than 5μ .

20. The composition according to claim 1 wherein the third component is (3) mentioned above.

20 21. The composition according to claim 1 wherein the third component is (4) mentioned above.

22. The composition according to claim 1 wherein two or more third components are contained.

23. The composition according to claim 1 wherein two or
25 more third components are contained in an amount of 1 through 40% by weight of the composition.

24. An airbag system wherein the composition according

to claim 1 is contained as the gas generant.